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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT	PAPER NUMBER
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2627

NOTIFICATION DATE	DELIVERY MODE
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07/23/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/800,697

Applicant(s)

PARK ET AL.

Examiner

Nathan Danielsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2007 and 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5 and 7-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 7-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/345,380.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1, 3, 4, and 7-21 are pending. Claims 2 and 5 have been canceled and claims 14-23 have been added in applicant's amendment filed 15 September 2006. Claims 6, 22, and 23 have been canceled in applicant's amendment filed 29 March 2007.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 29 March 2007 has been entered.

Claim Objections

3. Claim 1 is objected to because the phrase "receiving a command for real time recording a logical block address" should be --receiving a command for real time recording including a logical block address--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 8-13 and 16-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, applicant's specification as originally filed, both in the instant divisional application as well as the parent application (09/345380), fails to provide proper support for a method of managing a defective area on a recording

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medium, where a command indicating the *reproduction* of real time data is received, and a corresponding reproducing device. Applicant's specification only provides support for a method of managing a defective area on a recording medium, where a command from a host to the R/P device indicates that data to be recorded is real time data, and a corresponding recording device.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 8, 9, 16, 17, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 8 and 20, it is unclear, in light of applicant's specification, how whatever device issuing the command for reproducing knows that data recorded on the particular recording medium is real time data. Claims 9, 16, 17, and 21 are rejected as being dependent on an indefinite claim.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 8-13 and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Gotoh et al (WO 98/14938 and referenced using US Patent 6,292,625; hereinafter Gotoh).

Regarding claim 8, Gotoh discloses a method for managing a defective area on a recording medium, the recording medium including a defect management area including defect management information, which indicates a position of a defective area, the method comprising:

receiving a command for reproducing, the command indicating type information to indicate that recorded data is real time data (col. 12, lines 18-48);

determining whether a found defective block has been listed in the defect management information and the defective block has not been replaced with an available block of spare area based on an information, the information indicating whether the defective

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block has been replaced with an available block of spare area (col. 8, lines 22-39 and col. 12, lines 18-48); and

controlling the reproduction of the real time data such that an optical pickup skips the defective block and reproduces the data in a next available block without jumping to the spare area if the found defective block has been listed in the defect management information and the defective block has not been replaced with an available block of spare area (col. 12, lines 18-48).

Regarding claim 9, Gotoh discloses where the defect management information is PDL (Primary Defect List) and/or SDL (Secondary Defect List) (col. 8, lines 22-24; where the single defect list is the claimed PDL).

Regarding claim 10, Gotoh discloses a system for managing a defective area on a recording medium, the recording medium including a defect management area including defect management information, which indicates a position of defective area, the system comprising:

a recording/reproducing device to record or reproduce on or from the recording medium, the recording/reproducing device receiving a command for real time data recording or reproducing, checking whether or not a found defective block has been listed in the defect management information, skipping the defective block and recording data in a next available block if the found defective block has been listed in the defect management information prior to recording data, and recording an information to indicate that the defective block has been listed in the defect management information has not been replaced (col. 8, lines 22-39 and 62-67, col. 9, lines 34-43, and col. 12, lines 18-48); and
a host device, coupled to the recording/reproducing device, to control a recording/reproducing device, the host device transferring the command for real time data recording or reproducing to the recording/reproducing device, and controlling the recording/reproducing device to record or reproduce data according to the command (col. 9, lines 6-12);

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wherein the recording/reproducing device outputs an information for indicating a number of blocks skipped during a real time recording or reproducing to the host device, and the host device receives the information from the recording/reproducing device and outputs a next write command based on the received information (col. 14, line 61 through col. 15, line 9).

Regarding claim 11, Gotoh discloses where the host detects an amount of data recorded based on the information and updates the remaining capacity of the recording medium (col. 14, line 61 through col. 15, line 9).

Regarding claim 12, Gotoh discloses where the command further includes a logical block address to designate a recording or reproducing position and a transfer length information to identify an amount of data to be recorded or reproduced (col. 10, lines 52-65).

Regarding claim 13, Gotoh discloses where the command further includes a recording or reproducing speed (col. 9, lines 17-33; where an indication that real-time recording is required indicates that 1X is the required recording speed and an indication that real-time recording is not required indicates that the recording speed can be any other speed).

Regarding claims 16 and 18, Gotoh discloses where a speed flag is set according to a write speed of the data to be written (inherent in col. 9, lines 17-33).

Regarding claims 17 and 19, Gotoh discloses where a linear replacement is executed when transfer speed is lower than the write speed by a predetermined amount, except when real time processing is required (col. 9, lines 6-16).

Regarding claims 20 and 21, Gotoh discloses a method for managing a defective area on a recording medium, the recording medium includes defect management area including a defect list, which includes a position of defective area, the method comprising:

receiving a command for real time recording or reproducing (step A3 in figure 1);

not replacing (skipping) a found defective area with spare area if the defective area is found during real time recording or reproducing and recording or reproducing data in a next available area (col. 9, lines 34-43 and steps A4-A6 in figure 1);

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storing an identification information to indicate that the defective area is not replaced with a spare area (col. 12, lines 18-48; where the AV attribute bit indicates that a file is an AV file and therefore requires real time processing and is recorded using a skipping technique); and identifying a number of defective areas not replaced during the real time recording or reproducing, in order for use in a next recording or reproducing (col. 14, line 61 through col. 15, line 9).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 3, 4, 7, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gotoh, in view of Shirane (US Patent 5.412.629).

Regarding claim 1, Gotoh discloses a method for managing a defective area on a recording medium, the recording medium including a defect management area including a defect management information, which indicates a position of a defective area (figure 2), the method comprising:

receiving a command for real time recording (step A3 in figure 1);

determining whether a found defective block has been listed in the defect management information prior to recording data (col. 8, lines 22-39 and col. 9, lines 34-43 and steps A4-A6 in figure 1);

skipping the defective block and recording data in a next available block if the found defective block is listed in the defect management information (col. 9, lines 34-43 and steps A4-A6 in figure 1);

identifying a number of blocks skipped during the real time recording reproducing (col. 14, line 61 through col. 15, line 9); and

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outputting an information associated with the number of blocks skipped for at least a next recording or reproducing operation (col. 14, line 61 through col. 15, line 9).

However, Gotoh fails to disclose the contents of the command for real time recording.

In the same field of endeavor, Shirane discloses where the including a logical block address to designate a recording position and a transfer length information to identify an amount of data to be recorded (col. 7, lines 42-68).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a recording position and a transfer length information in the command for real time recording of Gotoh, as taught by Shirane, for the purpose of identifying the location on the disk of the data or information to be read or reproduced therefrom (col. 7, lines 42-68).

Regarding claim 3, Gotoh, in view of Shirane, discloses everything claimed, as applied to claim 1. Additionally, Gotoh discloses where the method further comprises updating a remaining recording capacity of the recording medium based on the outputted information after recording the data (suggested by col. 11, line 59 through col. 12, line 13; where knowing the address ranges of free areas will allow the apparatus to know how much free space there is).

Regarding claim 4, Gotoh, in view of Shirane, discloses everything claimed, as applied to claim 1. Additionally, Gotoh discloses where the method further comprises recording an information to indicate that the defective block has been listed in the defect management information and has not been replaced (col. 11, lines 1-9).

Regarding claim 7, Gotoh, in view of Shirane, discloses everything claimed, as applied to claim 1. Additionally, Gotoh discloses where the defect management information is PDL (Primary Defect List) and/or SDL (Secondary Defect List) (col. 8, lines 22-24; where the single defect list is the claimed PDL).

Regarding claim 14, Gotoh, in view of Shirane, discloses everything claimed, as applied to claim 1. Additionally, Gotoh discloses where a speed flag is set according to a write speed of the data to be written (inherent in col. 9, lines 17-33).

Regarding claim 15, Gotoh, in view of Shirane, discloses everything claimed, as applied to claim 1. Additionally, Gotoh discloses where a linear replacement is executed when transfer speed is lower

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than the write speed by a predetermined amount, except when real time processing is required (col. 9, lines 6-16).

Response to Arguments

11. Applicant's arguments with respect to claims 1, 8, 10, and 20 have been considered but are not persuasive.

a. Regarding applicant's argument that Gotoh fails to disclose that "the listing in the defect management information occurs prior to recording data", that "the listed defective block is skipped during the record", and the newly added limitation in claim 20, the examiner disagrees. Col. 8, lines 22-39 disclose generating a defect list while formatting a disc prior to recording data on the disc.

b. Regarding applicant's argument that Gotoh fails to disclose "generating information associated with a number of skipped blocks", the examiner disagrees. Applicant has not claimed generating a count of the number of skipped blocks. However, Gotoh directly implies that a count of the number of skips, or information associated with a number of skipped blocks, is kept in col. 14, lines 51-67 such that the device of Gotoh may determine if the number of skips has exceeded a threshold.

c. Regarding applicant's argument that Gotoh fails to disclose receiving a command indicating type information to indicate that the recorded data is real time data, the examiner disagrees. Step D5 in figure 14 indicates that type information is given/received indicating an AV extent should be reproduced.

d. For these reasons, the above rejections are deemed proper and are hereby maintained.

Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen
07/05/2007

/Thang V. Tran/
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Art Unit 2627